

$$a) f(x) = (x-3)^2 - (3x-2)^2$$

$$= ((x-3) - (3x-2)) ((x-3) + (3x-2))$$

$$= (x-3-3x+2) (x-3+3x-2)$$

$$= \underline{\underline{(-2x-1) (4x-5)}}$$

$$b) f(x) = (x^2 + 9 - 6x) - (9x^2 + 4 - 12x)$$

$$= x^2 - 6x + 9 - 9x^2 + 12x - 4$$

$$= \underline{\underline{-8x^2 + 6x + 5}}$$